

10/629,975
updated Search
L/Cook 6/7/05

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(FILE 'HOME' ENTERED AT 12:08:06 ON 07 JUN 2005)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT
12:08:27 ON 07 JUN 2005

L1	1 S LACTOFERRIN? AND 450NM
L2	297 S LACTOFERRIN AND POLYCLONAL?
L3	36 S L2 AND ENDOGENOUS?
L4	1 S L3 AND FECAL?
L5	13 S L3 AND ENZYME?
L6	13 DUPLICATE REMOVE L5 (0 DUPLICATES REMOVED)

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L6	13 DUPLICATE REMOVE L5 (0 DUPLICATES REMOVED)

=>

on STN
 AN 96252064 EMBASE
 DN 1996252064
 TI Anti-lactoferrin autoantibodies: Relation between epitopes and iron-binding domain.
 AU Audrain M.A.P.; Gourbil A.; Muller J.-Y.; Esnault V.L.M.
 CS Laboratoire d'Immunologie, CHU, 9 quai Moncousu, 44035 Nantes Cedex, France
 SO Journal of Autoimmunity, (1996) Vol. 9, No. 4, pp. 569-574.
 ISSN: 0896-8411 CODEN: JOAUEP
 CY United Kingdom
 DT Journal; Article
 FS 005 General Pathology and Pathological Anatomy
 018 Cardiovascular Diseases and Cardiovascular Surgery
 026 Immunology, Serology and Transplantation
 LA English
 SL English
 ED Entered STN: 960924
 Last Updated on STN: 960924
 AB Anti-neutrophil cytoplasm antibodies (ANCA) have been found in the sera of patients presenting systemic necrotizing microscopic vasculitis, i.e. Wegener's granulomatosis and microscopic polyangiitis. **Lactoferrin** (LF) is one of the antigens rarely recognized by ANCA, and anti-LF autoantibodies are found in several autoimmune conditions, including rheumatoid vasculitis, rheumatoid arthritis, systemic lupus erythematosus, ulcerative colitis, primary sclerosing cholangitis and Crohn's disease. We analysed the epitopes recognized by human anti-LF antibodies to test whether the heterogeneity of clinical presentation might be due to a different epitope recognition profile. Several monoclonal antibodies were raised and used in competition studies with six human sera. Four distinct epitopes were identified on LF, and LF binding of only one of six sera was inhibited by one of the monoclonals. Thus, anti-LF autoreactivity appears to be **polyclonal** and not restricted to an immunodominant epitope. Specific epitope profiles cannot be determined in these autoimmune conditions. We hypothesized that the interaction of anti-LF antibodies with the LF iron binding domain might contribute to pathogenesis by inhibiting iron chelation after neutrophil activation, thereby providing increased iron availability for endothelial cell damage. The relation of anti-LF mouse monoclonals or **polyclonal** human or rabbit antibodies to the LF iron-binding domain was studied in competition assays between ⁵⁹Fe and these antibodies. Preincubation of LF with monoclonals or anti-LF human sera did not affect the binding of ⁵⁹Fe on LF. ⁵⁹Fe-binding kinetic studies showed that rabbit anti-LF **polyclonal**, but not mouse monoclonals or human anti-LF positive sera, was capable of inhibiting iron binding on LF. Therefore, anti-LF autoantibodies did not appear to modulate LF iron-binding activity. We conclude that LF is a rare antigen specificity for ANCA and that the clinical and pathophysiological relevance of anti-LF autoreactivity remains uncertain.
 CT Medical Descriptors:
 *autoimmunity
 *iron binding capacity
 *systemic vasculitis: DI, diagnosis
 *systemic vasculitis: ET, etiology
 article
 controlled study
 enzyme linked immunosorbent assay
 human
 kinetics
 major clinical study
 priority journal
 diagnosis
 etiology

Drug Descriptors:

*autoantibody: EC, endogenous compound

*epitope

*granulocyte antibody: EC, endogenous compound

*lactoferrin: EC, endogenous compound

monoclonal antibody

RN (lactoferrin) 55599-62-7

on STN
AN 1999070895 EMBASE
TI Measurement of urinary **lactoferrin** as a marker of urinary tract infection.
AU Arao S.; Matsuura S.; Nonomura M.; Miki K.; Kabasawa K.; Nakanishi H.
CS S. Matsuura, Research and Development Department, Iatron Laboratories, Inc., 1460-6, Mitodai Mito, Tako, Katori, Chiba 289-2247, Japan
SO Journal of Clinical Microbiology, (1999) Vol. 37, No. 3, pp. 553-557.
Refs: 27
ISSN: 0095-1137 CODEN: JCMIDW
CY United States
DT Journal; Article
FS 004 Microbiology
028 Urology and Nephrology
LA English
SL English
ED Entered STN: 19990311
Last Updated on STN: 19990311
AB The usefulness of the measurement of urinary **lactoferrin** (LF) released from polymorphonuclear leukocytes and of an immunochromatography test strip devised for measuring urinary LF for the simple and rapid diagnosis of urinary tract infections (UTI) was evaluated. Urine specimens were collected from apparently healthy persons and patients diagnosed as suffering from UTI. In the preliminary study, the LF concentrations in 121 normal specimens and 88 specimens from patients (60 with UTI) were quantified by an **enzyme**-linked immunosorbent assay. The LF concentration was $3,300.0 \pm 646.3$ ng/ml (average \pm standard error of the mean) in the specimens from UTI patients, whereas it was 30.4 ± 2.7 ng/ml and 60.3 ± 14.9 ng/ml in the specimens from healthy persons and the patients without UTI, respectively. Based on these results, a 200-ng/ml LF concentration was chosen as the cutoff value for negativity. Each urine specimen was reexamined with the newly devised immunochromatography (IC) test strip to calculate the indices of efficacy. Based on the cutoff value, it was calculated that the sensitivity, specificity, and positive and negative predictive values of the IC test were 93.3, 89.3, 86.2, and 94.9%, respectively, compared with the results of the microscopic examination of the urine specimens for the presence of leukocytes. The respective indices for UTI were calculated as 95.0, 92.9, 89.7, and 96.6%. The tests were completed within 10 min. These results indicated that urine LF measurement with the IC test strip provides a useful tool for the simple and rapid diagnosis of UTI.
CT Medical Descriptors:
*urinalysis
*disease marker
*urinary tract infection: DI, diagnosis
measurement
chromatography
enzyme linked immunosorbent assay
diagnostic accuracy
microscopy
intermethod comparison
neutrophil
human
male
female
major clinical study
controlled study
human cell
adolescent
aged
child
adult

article

priority journal

Drug Descriptors:

***lactoferrin: EC, endogenous compound**

polyclonal antibody

monoclonal antibody

RN (lactoferrin) 55599-62-7

on STN

AN 1999070895 EMBASE

TI Measurement of urinary **lactoferrin** as a marker of urinary tract infection.

AU Arao S.; Matsuura S.; Nonomura M.; Miki K.; Kabasawa K.; Nakanishi H.

CS S. Matsuura, Research and Development Department, Iatron Laboratories, Inc., 1460-6, Mitodai Mito, Tako, Katori, Chiba 289-2247, Japan

SO Journal of Clinical Microbiology, (1999) Vol. 37, No. 3, pp. 553-557.

Refs: 27

ISSN: 0095-1137 CODEN: JCMIDW

CY United States

DT Journal; Article

FS 004 Microbiology
028 Urology and Nephrology

LA English

SL English

ED Entered STN: 19990311
Last Updated on STN: 19990311

AB The usefulness of the measurement of urinary **lactoferrin** (LF) released from polymorphonuclear leukocytes and of an immunochromatography test strip devised for measuring urinary LF for the simple and rapid diagnosis of urinary tract infections (UTI) was evaluated. Urine specimens were collected from apparently healthy persons and patients diagnosed as suffering from UTI. In the preliminary study, the LF concentrations in 121 normal specimens and 88 specimens from patients (60 with UTI) were quantified by an **enzyme**-linked immunosorbent assay. The LF concentration was $3,300.0 \pm 646.3$ ng/ml (average \pm standard error of the mean) in the specimens from UTI patients, whereas it was 30.4 ± 2.7 ng/ml and 60.3 ± 14.9 ng/ml in the specimens from healthy persons and the patients without UTI, respectively. Based on these results, a 200-ng/ml LF concentration was chosen as the cutoff value for negativity. Each urine specimen was reexamined with the newly devised immunochromatography (IC) test strip to calculate the indices of efficacy. Based on the cutoff value, it was calculated that the sensitivity, specificity, and positive and negative predictive values of the IC test were 93.3, 89.3, 86.2, and 94.9%, respectively, compared with the results of the microscopic examination of the urine specimens for the presence of leukocytes. The respective indices for UTI were calculated as 95.0, 92.9, 89.7, and 96.6%. The tests were completed within 10 min. These results indicated that urine LF measurement with the IC test strip provides a useful tool for the simple and rapid diagnosis of UTI.

CT Medical Descriptors:

- *urinalysis
- *disease marker
- *urinary tract infection: DI, diagnosis
- measurement
- chromatography
- enzyme linked immunosorbent assay**
- diagnostic accuracy
- microscopy
- intermethod comparison
- neutrophil
- human
- male
- female
- major clinical study
- controlled study
- human cell
- adolescent
- aged
- child
- adult

article

priority journal

Drug Descriptors:

***lactoferrin: EC, endogenous compound**

polyclonal antibody

monoclonal antibody

RN (lactoferrin) 55599-62-7

10/629, 975
updated search
LyCook 4/7/05

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(FILE 'HOME' ENTERED AT 11:41:37 ON 07 JUN 2005)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPPIO' ENTERED AT
11:42:04 ON 07 JUN 2005

L1 4 S (FECAL LACTOFERRIN) AND POLYCLONAL?
L2 1 DUPLICATE REMOVE L1 (3 DUPLICATES REMOVED)
L3 0 S (TOTAL LACTOFERRIN) AND POLYCLONAL?
L4 0 S LACTOFERRIN? AND POLYCONAL?
L5 19760 S LACTOFERRIN?
L6 279 S (FECAL LEUKOCYTE?)
L7 47 S L5 AND L6
L8 0 S L7 AND POLYCLONAL?
L9 9 S L7 AND ANTIBOD?
L10 4 DUPLICATE REMOVE L9 (5 DUPLICATES REMOVED)
L11 6 S (ENDOGENOUS LACTOFERRIN)
L12 3 DUPLICATE REMOVE L11 (3 DUPLICATES REMOVED)

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L5 19760 S LACTOFERRIN?
L6 279 S (FECAL LEUKOCYTE?)
L7 47 S L5 AND L6
L8 0 S L7 AND POLYCLONAL?
L9 9 S L7 AND ANTIBOD?
L10 4 DUPLICATE REMOVE L9 (5 DUPLICATES REMOVED)
L11 6 S (ENDOGENOUS LACTOFERRIN)
L12 3 DUPLICATE REMOVE L11 (3 DUPLICATES REMOVED)

=>

ANSWER 4 OF 4 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
DUPLICATE 2

AN 1992:305244 BIOSIS

DN PREV199294018394; BA94:18394

TI MEASUREMENT OF FECAL **LACTOFERRIN** AS A MARKER OF **FECAL
LEUKOCYTES**.

AU GUERRANT R L [Reprint author]; ARAUJO V; SOARES E; KOTLOFF K; LIMA A M;
COOPER W H; LEE A G

CS DIV GEOGRAPHIC MED, DEP MED, UNIV VIRGINIA SCH MED, CHARLOTTESVILLE, VA
22908, USA

SO Journal of Clinical Microbiology, (1992) Vol. 30, No. 5, pp. 1238-1242.
CODEN: JCMIDW. ISSN: 0095-1137.

DT Article

FS BA

LA ENGLISH

ED Entered STN: 27 Jun 1992

Last Updated on STN: 27 Jun 1992

AB While diarrheal illnesses are extremely common in communities and hospitals throughout the world, an etiologic diagnosis may be expensive and cost-ineffective. Although the presence of **fecal leukocytes** are helpful in the diagnosis and specific therapy of inflammatory diarrheas, this requires prompt microscopic examination of fecal specimens (preferably obtained in a cup rather than a swab or diaper) by a trained observer. We developed a simple, sensitive test for the detection of leukocytes in fecal specimens using antilactoferrin **antibody**. Whereas radial immunodiffusion detected 0.02 µg of **lactoferrin** (LF) per µl or ≥ 2,000 leukocytes per µl, latex agglutination (LA) readily detected ≥ 0.001 µg of LF per µl or ≥ 200 leukocytes per µl added to stool specimens. Despite the destruction or loss of morphologic leukocytes on storage for 1 to 7 days at 4° C or placement of specimens on swabs, measurable LF remained stable. Initial studies of stool specimens from six patients with Salmonella or Clostridium difficile enteritis were positive and those from three controls were negative for LF by LA. Of 17 children in Brazil with inflammatory diarrhea (≥ 1 leukocyte per high-power field), 16 (94%) had LF titers of ≥ 1:50 by LA, whereas only 3 of 12 fecal specimens with < 1 leukocyte per high-power field on methylene blue examination and none of 7 normal control specimens had an LF titer of > 1:50 by LA. Of 16 fecal specimens from patients with C. difficile diarrhea (cytotoxin titers, ≥ 1:1,000), 95% (n = 15) had detectable LF by LA (in titers of 1:100 to 1:800). Finally, of 48 fecal specimens from healthy adult U.S. volunteers before and after experimental shigellosis and of 29 fecal specimens from children with documented shigellosis and hospitalized controls in northeastern Brazil, fecal LF titers ranged from 1:200 to ≥ 1:5,000 in 96% (25 of 26) samples from patients with shigellosis (and reported positive for **fecal leukocytes**), while 51 controls consistently had fecal LF titers of ≤ 1:200. We conclude that fecal LF is a useful marker for **fecal leukocytes**, even when they are morphologically lost on swab specimens or when they are destroyed on transport or storage or by cytotoxic fecal specimens.

CC Biochemistry methods - Proteins, peptides and amino acids 10054

Biochemistry methods - Minerals 10059

Biochemistry studies - Proteins, peptides and amino acids 10064

Biochemistry studies - Minerals 10069

Pathology - Diagnostic 12504

Pathology - Inflammation and inflammatory disease 12508

Digestive system - Pathology 14006

Blood - General and methods 15001

Blood - Blood cell studies 15004

Blood - Lymphatic tissue and reticuloendothelial system 15008

Pediatrics - 25000

Immunology - General and methods 34502

Immunology - Bacterial, viral and fungal 34504
 Medical and clinical microbiology - General and methods 36001
 Medical and clinical microbiology - Bacteriology 36002
 Medical and clinical microbiology - Serodiagnosis 36504
 IT Major Concepts
 Blood and Lymphatics (Transport and Circulation); Gastroenterology
 (Human Medicine, Medical Sciences); Immune System (Chemical
 Coordination and Homeostasis); Infection; Pathology; Serology (Allied
 Medical Sciences)
 IT Miscellaneous Descriptors
 SALMONELLA CLOSTRIDIUM-DIFFICILE ENTERITIS CHILDREN ADULTS SHIGELLOSIS
 INFLAMMATORY DIARRHEA ANTILACTOFERRIN **ANTIBODY** LATEX
 AGGLUTINATION IMMUNOLOGIC METHOD DIAGNOSTIC METHOD
 ORGN Classifier
 Enterobacteriaceae 06702
 Super Taxa
 Facultatively Anaerobic Gram-Negative Rods; Eubacteria; Bacteria;
 Microorganisms
 Taxa Notes
 Bacteria, Eubacteria, Microorganisms
 ORGN Classifier
 Endospore-forming Gram-Positives 07810
 Super Taxa
 Eubacteria; Bacteria; Microorganisms
 Taxa Notes
 Bacteria, Eubacteria, Microorganisms
 ORGN Classifier
 Hominidae 86215
 Super Taxa
 Primates; Mammalia; Vertebrata; Chordata; Animalia
 Taxa Notes
 Animals, Chordates, Humans, Mammals, Primates, Vertebrates

=>

ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1992:509404 CAPLUS
 DN 117:109404
 ED Entered STN: 20 Sep 1992
 TI In vitro test for **fecal leukocytes** for diagnosis of
 inflammatory diarrhea
 IN Guerrant, Richard L.; Lee, Amelia G.; Cooper, William H.
 PA University of Virginia Alumni Patents Foundation, USA
 SO U.S., 5 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM G01N033-559
 ICS G01N033-551; G01N033-546

INCL 435007240

CC 14-7 (Mammalian Pathological Biochemistry)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5124252	A	19920623	US 1989-442309	19891128
PRAI	US 1989-442309		19891128		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5124252	ICM	G01N033-559
	ICS	G01N033-551; G01N033-546
	INCL	435007240
US 5124252	NCL	435/007.240; 435/007.920; 435/007.940; 436/514.000; 436/534.000

AB Inflammatory is distinguished from noninflammatory diarrhea by testing a fecal sample with an immunoassay for **lactoferrin** to estimate the number of **fecal leukocytes**. Assays used included a radial immunodiffusion assay, a latex agglutination assay, and an ELISA.

ST inflammatory diarrhea diagnosis **lactoferrin** leukocyteIT **Lactoferrins**

RL: ANT (Analyte); ANST (Analytical study)

(determination of, by immunoassay in leukocyte estimation in feces for inflammatory diarrhea diagnosis)

IT Leukocyte

(estimation of, in feces with **lactoferrin** immunoassay for inflammatory diarrhea diagnosis)

IT Feces

(leukocyte estimation in, with **lactoferrin** immunoassay for inflammatory diarrhea diagnosis)

IT **Antibodies**

RL: BIOL (Biological study)

(to **lactoferrin**, for leukocyte estimation in feces for inflammatory diarrhea diagnosis)

IT Diarrhea

(inflammatory, diagnosis of, leukocyte estimation in feces with **lactoferrin** immunoassay for)

ANSWER 2 OF 4 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
DUPLICATE 1

AN 1996:22064 BIOSIS

DN PREV199698594199

TI Correlation of **lactoferrin** with neutrophilic inflammation in
body fluids.

AU Martins, Clovis A. P.; Fonteles, Maria G.; Barrett, Leah J.; Guerrant,
Richard L. [Reprint author]

CS Box 485, Div. Geographic and Int. Med., Univ. Va. Sch. Med.,
Charlottesville, VA 22908, USA

SO Clinical and Diagnostic Laboratory Immunology, (1995) Vol. 2, No. 6, pp.
763-765.

ISSN: 1071-412X.

DT Article

LA English

ED Entered STN: 12 Jan 1996

Last Updated on STN: 12 Jan 1996

AB We have reported that **lactoferrin**, a 77-kDa iron-binding
glycoprotein found in secondary neutrophil granules, provides a useful
marker of **fecal leukocytes** in fecal specimens from
patients with inflammatory diarrhea (R. L. Guerrant, V. Araujo, E.
Soares, K. Kotloff, A. A. M. Lima, W. H. Cooper, and A. G. Lee, J.
Clin. Microbiol. 30:1238-1242, 1992). In order to determine the
usefulness of this marker of neutrophilic inflammation in different body
fluids, we examined blood, gingival swabs, sputum, and saliva using
antilactoferrin **antibodies** (**lactoferrin** latex
agglutination (LFLA)). LFLA titers in whole blood samples were ltoreq 1:4
in all eight samples from patients with neutropenia (absolute neutrophil
count (ANC) = lt 150 polymorphonuclear cells (PMNs) per mu-l), ltoreq 1:8
in samples from 13 individuals with moderate leukocyte counts (ANC = 150
to 8,000), and 1:8 to 1:32 in samples from six patients with neutrophilia
(ANC gt 8,000). While the overlap precludes a useful role in the
identification of neutropenia, these data confirm that **lactoferrin**
titers of gt 1:100 indeed indicate inflammation in fluid specimens. On
quantitative elution of **lactoferrin** from gingival swabs, all 7
patients with dental plaque had titers of 1:200 to 1:400; 9 of 12 patients
with clinical gingivitis had LFLA titers of 1:200 to 1:1,600, while all 7
individuals with healthy gums and teeth and 4 edentulous patients had LFLA
titers of ltoreq 1:100. Eight purulent sputum samples had titers of
gtoreq 1:400 (7 were 1:1,600) while 11 normal saliva samples showed titers
of ltoreq 1:100. **Lactoferrin** titers in sputum, gingival swabs,
and whole blood correlate with the presence of neutrophils or inflammation
in these specimens and may offer a convenient rapid test for inflammatory
processes.

CC Cytology - Human 02508

Biochemistry methods - Proteins, peptides and amino acids 10054

Biochemistry studies - Proteins, peptides and amino acids 10064

Biophysics - Methods and techniques 10504

Pathology - Diagnostic 12504

Pathology - Inflammation and inflammatory disease 12508

Digestive system - Physiology and biochemistry 14004

Digestive system - Pathology 14006

Blood - Blood cell studies 15004

Blood - Lymphatic tissue and reticuloendothelial system 15008

Immunology - General and methods 34502

Immunology - Immunopathology, tissue immunology 34508

IT Major Concepts

Biochemistry and Molecular Biophysics; Blood and Lymphatics (Transport
and Circulation); Cell Biology; Clinical Endocrinology (Human Medicine,
Medical Sciences); Digestive System (Ingestion and Assimilation);
Gastroenterology (Human Medicine, Medical Sciences); Immune System
(Chemical Coordination and Homeostasis); Pathology

IT Miscellaneous Descriptors

DIAGNOSTIC IMPLICATIONS; **FECAL LEUKOCYTE MARKER**;
INFLAMMATORY DIARRHEA; INFLAMMATORY PROCESS; **LACTOFERRIN**
LATEX AGGLUTINATION

ORGN Classifier

Hominidae 86215

Super Taxa

Primates; Mammalia; Vertebrata; Chordata; Animalia

Organism Name

human

Taxa Notes

Animals, Chordates, Humans, Mammals, Primates, Vertebrates